

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Serial No.: 10/766,474
Applicant: Steven T. Fink
Art Unit: 1792
Examiner: Chen, Bret P.
Title: **METHOD FOR MANUFACTURING A SUBSTRATE WITH A
PRE-SEASONED PLASMA PROCESSING SYSTEM**
Attorney Docket: PC0155A
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Chandler, Arizona 85226

July 1, 2008

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

RESPONSE TO NOTICE OF NON-COMPLIANT AMENDMENT (37 C.F.R. §1.121)

This paper is responsive to the Notice of Non-Compliant Amendment mailed June 6, 2008. The Examiner has indicated that a complete listing of claims was not present in the response to the final Office Action accompanied by an RCE, filed on May 21, 2008. The present response includes the following:

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AMENDMENTS TO THE CLAIMS

1. (Currently amended) A method for manufacturing a substrate with a plasma processing system, the method comprising:

obtaining a component of a plasma processing system which has been coated with a film of material;

disposing said component in a first plasma processing chamber;

disposing a substrate on a chuck in the first plasma processing chamber; and

forming a first plasma in a processing region within the first plasma processing chamber, wherein the film of material has been coated using a second plasma in a second plasma processing chamber different from said first plasma processing chamber; ~~and~~

~~wherein the chemistries of the first and second plasmas are substantially the same.~~

2. (Original) The method for manufacturing a substrate with a plasma processing system as recited in claim 1, wherein the obtaining includes obtaining a component from one of a component manufacturer and plasma processing chamber manufacturer.

3.-4. (Cancelled)

5. (Previously presented) The method for manufacturing a substrate with a plasma processing system as recited in claim 1, wherein the second plasma processing chamber used to coat the component is similar to the first plasma processing chamber where the substrate is disposed.

6. (Original) The method for manufacturing a substrate with a plasma processing system as recited in claim 1, wherein the film of material comprises a minimum thickness determined by at least one of a customer specification, a supplier specification, a process recipe, a chamber parameter, a pre-seasoning time, and a type of process used to manufacture the

substrate.

7. (Original) The method for manufacturing a substrate with a plasma processing system as recited in claim 1, wherein the film of material comprises a uniformity determined by at least one of a customer specification, a supplier specification, a process recipe, a chamber parameter, a pre-seasoning time, and a type of process used to manufacture the substrate.

8. (Previously presented) The method for manufacturing a substrate with a plasma processing system as recited in claim 1, wherein the film of material comprises a material that is determined by at least one of a customer specification, a supplier specification, a process recipe, a chamber parameter, a pre-seasoning time, and type of process used to manufacture the substrate.

9. (Original) The method for manufacturing a substrate with a plasma processing system as recited in claim 1, wherein the film of material has a thickness within a range of about 1 to about 500 microns.

10. (Cancelled)

11. (Original) The method for manufacturing a substrate with a plasma processing system as recited in claim 1, further comprising pumping excess gas through a pump opening arranged in the plasma processing chamber.

12. (Original) The method for manufacturing a substrate with a plasma processing system as recited in claim 11, wherein:

the obtaining includes obtaining a pumping deposition shield that has been coated with a film of material; and

the component disposing includes disposing said pumping deposition shield in the pump

opening.

13. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 1, wherein:

the obtaining includes obtaining a liner that has been coated with a film of material, and
the component disposing includes disposing said liner on an inner wall of the plasma processing chamber.

14. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 1, further comprising optically detecting a plasma process condition through a diagnostic opening arranged in the plasma processing chamber.

15. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 14, wherein:

the obtaining includes obtaining an optical window deposition shield that has been coated with a film of material; and

the component disposing includes disposing said optical window deposition shield in the diagnostic opening.

16. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 11, wherein:

the obtaining includes obtaining a pumping baffle plate that has been coated with a film of material; and

the component disposing includes disposing the pumping baffle plate such that the pumping baffle plate separates the pump opening from the processing region, said pumping baffle plate extending from the inner wall of the process chamber to the periphery of the chuck and comprising a plurality of holes there through.

17. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 16, wherein the pumping baffle plate has a shape selected from the group consisting of a cylindrical form, a polygonal form and an elliptical form.

18. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 1, wherein:
the obtaining includes obtaining a plasma baffle assembly that has been coated with a film of material; and
the method further comprises attenuating the plasma within the plasma processing chamber in a space proximate to the substrate with the plasma baffle assembly.

19. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 18, wherein the baffle assembly has a shape selected from the group consisting of a cylindrical form, a conical form, a polygonal form and a spherical form.

20. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 18, wherein the plasma baffle assembly has holes through a wall of said plasma baffle assembly.

21. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 1, further comprising:
moving the chuck to the plasma processing region with a moving assembly.

22. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 21, wherein:
the obtaining includes obtaining a bellows shield that has been coated with a film of material; and
the component disposing includes disposing the bellows shield along the moving

assembly and at a periphery of the chuck.

23. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 1, wherein:

the obtaining includes obtaining a shield ring and a focus ring that have been coated with a film of material; and

the component disposing includes disposing the ring member and the focus ring on the chuck at a periphery of the substrate to control a plasma condition proximate to this periphery.

24. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 1, wherein the plasma is formed by a plasma generating system that comprises an electrode disposed in the plasma processing chamber.

25. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 24, wherein the obtaining includes obtaining the electrode that has been coated with a film of material.

26. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 25, further comprising injecting process gas through a plurality of holes in the electrode.

27. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 25, wherein the electrode is grounded.

28. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 24, wherein:

the obtaining includes obtaining an insulating member that has been coated with a film of material; and

the component disposing includes disposing said insulating member between the electrode and an inner wall of the plasma processing chamber.

29. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 24, wherein:

the obtaining includes obtaining an upper shield ring that has been coated with a film of material in the; and

the component disposing includes disposing said upper shield ring at a periphery of the electrode to control a plasma condition proximate to this periphery.

30. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 1, wherein the forming includes forming the plasma with a plasma generating system that comprises an inject plate assembly for injecting process gas in the processing region and an electrostatic radio frequency source having a process tube housing a magnetic coil.

31. (Withdrawn) The method for manufacturing a substrate with a plasma processing system as recited in claim 30, wherein the obtaining includes obtaining the inject plate assembly and the process tube that has been coated with a film of material.

Application No. 10/766,474
Response dated July 1, 2008
to Office Action mailed June 6, 2008

REMARKS

Reconsideration of and timely allowance of the pending claims, in view of the following remarks, are respectfully requested.

This paper is responsive to the Notice of Non-Compliant Amendment (37 C.F.R. §1.121) mailed June 6, 2008. The Examiner has indicated that a complete listing of claims was not present in the response to the final Office Action accompanied by an RCE, filed on May 21, 2008. The applicants would like to thank the Examiner for providing a one month time period for correction of the noted deficiency. The full list of claims in the application, including withdrawn claims and markup corresponding to the last amendment filed on May 21, 2008, is attached to this paper (please refer to the "Amendments to the Claims" section). The applicants respectfully submit that no new matter is being added.

The applicants are of the belief that no fee(s) are due with the filing of this paper. However, please charge our Deposit Account No. 50-3451 for any additional fee(s) that may be due in this matter, including any extension of time fee(s) under 37 C.F.R. §1.136(a), if deemed necessary, and please credit the same deposit account for any overpayment.

Should the Examiner have any questions or deem that any further action is necessary to rectify the noted deficiency or place this application in better form for allowance, the Examiner is encouraged to contact the undersigned representative at the below listed telephone number.

Respectfully submitted,

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